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09/751,720	12/29/2000	John S. Rhoades	99-039-TAP	9219

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EXAMINER

COLIN, CARL G

ART UNIT	PAPER NUMBER
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2136

DATE MAILED: 01/20/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/751,720

Applicant(s)

RHOADES, JOHN S.

Examiner

Carl Colin

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 28 October 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-4, 7-17 and 20-30 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-4, 7-17 and 20-30 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 29 December 2000 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Response to Arguments

1. In response to communications filed on 10/28/2005, claims 1, 3, 4, 7-11, 14, 16, 17, 20-24, 27, and 29, the following claims 1-4, 7-17, and 20-30 are presented for examination.

1.1 Applicant's arguments pages 8-11, filed on 10/28/2005 with respect to the rejection of claims 1-4, 7-17, and 20-30 have been fully considered but they are not persuasive. With respect to amended claim 1, in response to applicant's argument that the examiner's conclusion of obviousness is based upon improper hindsight reasoning, it must be recognized that any judgment on obviousness is in a sense necessarily a reconstruction based upon hindsight reasoning. But so long as it takes into account only knowledge which was within the level of ordinary skill at the time the claimed invention was made, and does not include knowledge gleaned only from the applicant's disclosure, such a reconstruction is proper. See *In re McLaughlin*, 443 F.2d 1392, 170 USPQ 209 (CCPA 1971). In response to applicant's argument that there is no suggestion to combine the references, the examiner recognizes that obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. See *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988) and *In re Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992). In this case, as explained in the rejection of claims 1 and 6 in the previous office action, there is some teaching, suggestion, or motivation to do so

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found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art (see pages 3-5 and pages 7-8 of previous office action). Applicant further argues that Munro's reference has no ability to only allow data flow to a high security level but not allow data flow to a lower security level. Examiner respectfully disagrees. In response to applicant's argument that the references fail to show certain features of applicant's invention, it is noted that the features upon which applicant relies (i.e., ability to only allow data flow to a high security level but not allow data flow to a lower security level) are not recited in the rejected claim(s). Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).

With respect to claim 30, Applicant's arguments fail to comply with 37 CFR 1.111(b) because they amount to a general allegation that the claims define a patentable invention without specifically pointing out how the language of the claims patentably distinguishes them from the references. The rejection of the claims as amended are discussed further below.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claims 3, 4, 7-11, 16, 17, 20-24, 29, and the intervening claims are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to

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reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. The specification fails to describe at least “transmitting the data from the first data storage unit within a first automated data storage system to a second data storage unit within a first automated data storage system... wherein the first automated data storage system is an unclassified storage system coupled to a first server... updating the source control data set by the first server... notifying the first server that the second unit has been removed... and fails to describe at least receiving request from a second automated data storage system coupled to a second server... wherein the second automated data storage system comprising a destination control data set distinct from the source control data set and managed by the second server... updating the destination control data set by the second server... notifying the second server... For instance, the specification, on the other hand, describes a shared ACSL server with respect to figures 7-9 for performing the steps in figures 7-9. There is no disclosure of first and second server. In addition, the passage on page 25, lines 14-25 that Applicant is relying on does not describe the claimed invention as claimed. “Then a request is made for a copy of the tape by the software (716)” not a second automated data storage system. Figure 7 merely describes a pass-through port, page 24, lines 17-19. Examiner cannot find where the specification describes “wherein the second automated storage system is a destination automated storage system coupled to a second server via a destination data path and a destination control path wherein the source data path is distinct from the destination data path and the source control path is distinct from the destination data path... wherein the source data storage system comprises a source control data set managed by the first server and the destination data storage system comprises a destination control data set distinct

from the source control data set and managed by the second server” as claimed in claims 3-4, 16-17, and 29. Applicant is requested to clearly specify and identify by page and line number where the limitations for each of the amended claims are found or described in the disclosure.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4.1 **Claim 30** is rejected under 35 U.S.C. 102(b) as being anticipated by US Patent US Patent 4,864,438 to **Munro**.

4.2 **As per claim 30, Munro** discloses a tape cartridge movement management apparatus for an automated tape cartridge library system a secure gateway apparatus that meets the recitation of a secure gateway apparatus for sharing a multiple gateway automated storage system the apparatus comprising:

a controller (automated tape cartridge library system, see column 14, lines 19-23 and column 3, lines 27-40) that controls transporting a data storage unit from a first data storage device to a second data storage device, for example (see column 14, lines 59-67; column 15, lines 1-30; column 16, lines 26-51; and abstract); a transportation device that transports the data storage unit from the first data storage device to the second data storage device wherein the

transportation device protects against transporting the data storage unit from the second data storage device back to the first data storage device, for example (see column 14, lines 59-67; column 15, lines 1-30; column 16, lines 26-51; and abstract).

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4.1 **Claims 1-29** are rejected under 35 U.S.C. 103(a) as being unpatentable over US Patent Publication US 2004/0073676 to **Honma et al** in view of US Patent 4,864,438 to **Munro**.

4.2 **As per claims 1, 14, and 27, Munro** substantially discloses a method for sharing multiple gateway automated data storage system comprising:

transmitting data from and to data storage units within a first automated data storage system, for example data can be passed from and to any of the drives 141-144, 141-142 may be part of one automated data storage system and 143-144 may be part of another automated data

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storage system (column 13, lines 45 through column 14, line 16) that meets the recitation of transmitting data from a first data storage unit within a first automated data storage system to a second data storage unit within a first automated data storage system; and further discloses wherein the first automated data storage system comprises a robotic mechanism for transporting data storage units (column 4, lines 53-58).

Munro discloses at least two host computers 101-102 and each of hosts includes software for tape cartridge retrieval commands for sending requests for tape cartridge in one module such as 111 to be transmitted to another module such as 112 (part of a different automated data storage system) (see column 4, line 63 through column 5, line 56 and column 6, line 11 through column 7, line 11) Munro illustrates in an example of retrieval request with respect to computer 101, as disclosed above (see also figure 1), computer 102 is configured to perform the same process that meets the recitation of receiving a request from a second automated data storage system for a second data storage unit and further discloses wherein the first automated data storage system comprises a robotic mechanism for transporting data storage units (column 4, lines 53-58); and

transporting the second data storage unit to the second data storage system without human handling of the second data storage unit (column 6, line 12 through column 7, line 12).

Munro is silent about creating a copy of the tape cartridge before transporting to the second automated data storage system. Making a backup of a tape (transmitting data from one storage unit to another storage unit) before transferring it to another system is very well known in the art and would have been obvious to one skilled in the art of storage management in order to have a backup of the data in case of any failure or unauthorized access. **Honma et al** in an

analogous art discloses a method and system in a secure gateway for sharing a multiple gateway automated data storage system containing a first data storage unit with data stored within the first data storage unit, comprising the steps of: creating a copy of data from a first volume to a second volume and to a tape unit within a first automated storage system (page 3, paragraph 48) that meets the recitation of transmitting the data from the first data storage unit within a first automated data storage system to a second data storage unit within a first automated data storage, wherein the first automated data storage system comprises a robotic mechanism for transporting data storage units; a request for backup is made by another server and the tape is mounted onto a tape library (page 5, paragraphs 61-62) that meets the recitation of receiving a request from a second automated data storage system for the second data storage unit wherein the second automated data storage system comprises a second robotic mechanism for transporting data storage units. **Honma et al** discloses several advantages with respect to backup tape for data protection (see page 3, paragraphs 41-45). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the method of **Munro** to implement the concept of storage management of **Honma et al**, creating a copy of the data within the first automated data storage system and providing a backup copy tape to the second automated data storage system because it provides a measure against disk drive failures and improvement in system availability such as disaster recovery and management of shared resources and non-disruptive backup (page 3, paragraphs 41-45). The motivation to do so is given by **Honma et al** who teaches tape unit shared backup as a measure against disk drive failures and improvement in system availability such as disaster recovery and management of shared resources and non-disruptive backup (page 3, paragraphs 41-45).

Munro discloses separate data path completely independent and isolated from the control path (see column 7, lines 14-16) and discloses separate paths from and to each host and from and to each automated data storage system (see figure 1), to one of ordinary skill in the art, path 176, for example, may not be shared between host computers 101 and 102. Although **Munro** is silent about the first automated data storage system is an unclassified data storage system and the second automated data storage system is a classified data storage system that complies with a government security classification, it is apparent to one skilled in the art that the system can be set up to control access of data by limiting each user/host access to a specific automated data storage system as it is well known in the art of computer security, data authentication, security levels, etc. (For instance, Basham et al, US Patent 6,425,059 teaches a controller that prevents a requesting host from unloading a cartridge from a drive unless the host has access rights to the data storage system where the cartridge was originally loaded and similarly preventing a requesting host from loading a cartridge from a storage slot unless the host has access right to the data storage system of that storage slot, meaning that a host may load/unload from one library to another but not capable of doing the reverse because the host only has access to one library the other library is not to be shared (secured or classified), (see abstract) and (more details in columns 2, 4-5). **Honma et al** in an analogous art teaches data storage systems that are shared within companies (unclassified) and data storage systems that are not shared between companies (classified), (pages 9-10 paragraphs 102-106). **Honma et al** further teaches individual enterprises are only assigned individual paths and authorized to access to a particular path only to storage units, and storage system in an enterprise environment can be set so that only registered servers can get access to that storage system that meets the recitation of a classified

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data storage system in compliance with a government security classification (page 10, paragraph 104-106), and further discloses that even though the sharing reduces cost but considerations should be taken in securing storage units so that all servers cannot access all storage units (page 9, paragraph 103); as discussed above, a particular server can be assigned to a storage system so that only a registered server can gain access to it, that storage system is therefore classified in term of security (see pages 9-10, paragraphs 0103-0106). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the method of **Munro** to include some of the inventive features of **Homma et al** as described above including providing unclassified and classified data storage systems because by assigning and securing path to individual servers, by registering individual servers with individual storage units, and limiting access to particular storage systems, storage systems that are not to be shared would be prevented from being access by unauthorized servers as taught by **Homma et al**. This modification would have been obvious because one skilled in the art would have been motivated by the suggestions provided by **Homma et al** to protect company secure resources from being accessed or shared by others (pages 9-10, paragraphs 0103-0106).

As per claims 2, 15, and 28, Munro discloses the limitation of further comprising: generating an identification qualifier for the second data storage unit, for example (see column 2, lines 25-46 and column 5, lines 21-40).

As per claims 3 and 16, Munro discloses the limitation of wherein the first automated data storage system is a source automated data storage system, coupled to a first server via a

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source data path and a source control path, (see column 4, line 34 through column 5, line 40 and column 7, lines 14-22 and figure 1) wherein the second automated storage system is a destination automated storage system coupled to a second server via a destination data path and a destination control path wherein the source data path is distinct from the destination data path (see column 4, lines 34-45 and column 7, lines 14-22 and figure 1) and the source control path is distinct from the destination data path (column 7, lines 14-22) and wherein the source automated data storage system and the destination automated data storage system are each physically connected to a pass-through port (see column 6, lines 39-42). **Munro** discloses separate data path completely independent and isolated from the control path (see column 7, lines 14-16) and discloses separate paths from and to each host and from and to each automated data storage system (see figure 1).

As per claims 4 and 17, Munro discloses the limitation of wherein the source data storage system comprises a source control data set managed by the first server through 131 (column 13, lines 45-64) and the destination data storage system comprises a destination control data set distinct from the source control data set and managed by the second server (see figure 1), for example (column 2, line 64 through column 3, line 26 and column 5, line 40 through column 7, line 11). (See also column 12, line 12 through column 13, line 26 and column 3 lines 26-40).

As per claims 7, 20, and 29, Munro discloses the limitation of further comprising: responsive to the transporting step, updating a control data set managed by an automated library data storage system library server, for example (see column 15, lines 30-38 and column 12, line 41 through column 13, line 45; column 13, line 45 through column 14, line 16).

As per claims 8 and 21, Munro discloses the limitation of wherein the control data set is integrated into a first server, for example (see column 3, lines 26-40 and column 5, lines 15-45).

As per claims 9 and 22, Munro discloses the limitation of wherein the control data set is external to a first server, for example (see column 5, lines 25-38 and column 18, lines 45-67).

As per claims 10-11 and 23-24, Munro discloses the limitation of decataloging and cataloging the second data storage unit from and into the first automated data storage system and notifying the respective server that the second data storage unit is removed from the first and received at the second automated data storage system, for example (see column 15, lines 10-50 and column 18, lines 45-67; see also columns 13-14).

As per claims 12 and 25, Munro discloses the limitation of wherein transporting the second data storage unit to the second data storage system comprises: controlling movement of the robotic mechanism to transport the second data storage unit to a pass-thru port that interconnects the first automated data storage system with the second automated data storage system, for example (see column 6, lines 39-67 and column 13).

As per claims 13 and 26, Munro discloses the limitation of wherein transporting the second data storage unit to the second data storage system further comprises controlling movement of the second robotic mechanism to transport the second data storage unit from the

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pass-thru port to the second automated data storage system, for example (see column 6, lines 39-67 and column 13).

Conclusion

5. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.


5.1 The prior art made of record and not relied upon is considered pertinent to applicant's disclosure as the art discloses the use of sharing automated data storage system. Many of the claimed features, i.e. cataloging/decataloging, backup, control access, notification of update information etc. are disclosed in this reference.


US Patents: 5,287,459 Gniewek; 5,537,585 Blickenstaff et al; 5,121,483 Monahan et al; 5,164,909 Leonhardt et al; 5,343,403 Beidle et al.

5.2 Any inquiry concerning this communication or earlier communications from the examiner should be directed to Carl Colin whose telephone number is 571-272-3862. The examiner can normally be reached on Monday through Thursday, 8:00-6:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ayaz Sheikh can be reached on 571-272-3795. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


Carl Colin
Patent Examiner
January 15, 2006


Primary Examiner
AU2131
1/15/06